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SUPERIOR COURT OF THE STATE OF CALIFORNIA
COUNTY OF LOS ANGELES

Coordination Proceeding)	Judicial Council Coordination
Special Title (Rule 1550(b)))	Proceeding No. 4408
)	
ANTELOPE VALLEY GROUNDWATER CASES)	
)	
Included actions:)	
Los Angeles County Waterworks District No. 40 v.)	DECLARATION OF
Diamond Farming Co., et al.)	JUNE OBERDORFER
Superior Court of California, County of Los Angeles,)	
Case No. BC 325 201)	
Los Angeles County Waterworks District No. 40 v.)	
Diamond Farming Co., et al.)	
Superior Court of California, County of Kern, Case)	
No. S-1500-CV-254-348)	
Wm. Bolthouse Farms, Inc. v. City of Lancaster)	
Diamond Farming Co. v. City of Lancaster)	
Diamond Farming Co. v. Palmdale Water Dist.)	
Superior Court of California, County of Riverside,)	
consolidated actions, Case nos. RIC 353 840, RIC)	
344 436, RIC 344 668)	

I, June Oberdorfer, do hereby declare as follows:

1. I am a Professional Geologist and Certified Hydrogeologist in the State of California. I have a Doctor of Philosophy degree in Geology and Geophysics, with an emphasis in hydrogeology, from the University of Hawaii. I have conducted groundwater investigations for over 27 years. I am a Professor in the Department of Geology at San Jose State University and act as a consultant on groundwater related issues. In the present case, my role is a consultant to Earth Tech, Inc. I have conducted groundwater investigations in California since 1984, including investigations in groundwater basin characterization, water supply, and groundwater contamination. This work has included several investigations in the North Muroc subbasin of the Antelope Valley groundwater basin. A copy of my resume is attached.
2. In April 2006, I was hired as a consultant on this project for Earth Tech, Inc. and asked by the United States Department of Justice to work on the adjudication of the Antelope Valley groundwater basin, including the proposed boundaries for the area to be adjudicated.
3. In completing my investigation of the boundaries of the Antelope Valley groundwater basin,

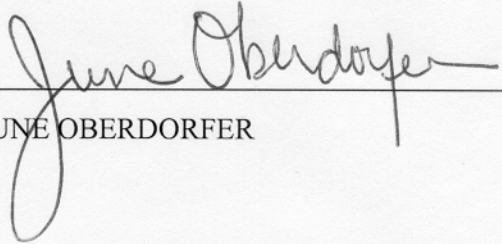
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I performed the following tasks:

- a. Acquired and reviewed pertinent technical documents;
 - b. Participated in a meeting with a panel of technical experts to discuss basin boundaries;
 - c. Downloaded and analyzed water level data for portions of the basin from the online water databases of the U.S. Geological Survey and the California Department of Water Resources;
 - d. Downloaded and analyzed annual streamflow data for the basin from the online water database of the U. S. Geological Survey; and
 - e. Reviewed portions of earlier court transcripts and exhibits.
4. The result of my investigation is attached to this declaration as Exhibit A. It contains a summary of my opinions and conclusions and is based on my personal knowledge and review of available technical information.

I declare under the penalty of perjury, the above statements are true and correct.

Dated this 29th day of June, 2006.



JUNE OBERDORFER

1 ***June A. Oberdorfer, PhD, PG, CHG***

2
3 Education:

4 Ph.D., Geology and Geophysics, May 1983
5 University of Hawaii, Honolulu, Hawaii
6 Dissertation: "Wastewater Injection: Near-well
7 Processes and Their Relationship to Clogging"

8
9 Fil. Kand., Geology, June 1977
10 University of Stockholm, Sweden

11
12 B.A., English and American Literature, June 1970
13 Brown University, Providence, Rhode Island

14
15 Registration:

16 Professional Geologist, State of California, Number: 6103
17 Certified Hydrogeologist, State of California, Number: 100

18
19 Professional Experience:

20 San Jose State University, Department of Geology, San Jose, California
21 Assistant Professor, August 1983 to July 1986
22 Associate Professor, August 1986 to July 1991
23 Professor, August 1991 to present

24 Duties: Develop hydrogeology program within the department. Teaching of
25 introductory (senior level) and advanced (graduate level) groundwater courses,
26 plus multiple graduate seminars in hydrogeology and team-taught course with
27 Engineering on hazardous materials. Conduct research on groundwater basin
28 characterization, coastal aquifer-marine interactions, vadose zone water
transport, and contaminant transport.

Lawrence Livermore National Laboratory
Consultant to Environmental Protection Division
Site 300, Pit 7 Complex Contamination Study and other Operable Unit

Investigations

October 1984 to February 2001

Duties: Advise on monitoring installation (vadose and saturated zone), aquifer
testing, and data interpretation for a study on landfill and firing table
contaminant plumes consisting of radioactive elements and solvents in porous
media and fractured rock aquifers at CERCLA site. Model plume movement,
transformations and remedial options.

EarthTech, Inc./RUST E & I/ Wahler Associates, San Jose, California
Consultant on Multiple Projects

1 August 1992 to January 1996, June 1999 to present

2 Duties: Formulation of hydrogeologic conceptual models, analytical and
3 numerical modeling of landfill sites and contaminant sites for risk assessment
4 and remedial action planning, aquifer test analysis.

4 TRC Lowney, Mountain View, California

5 Consultant on Multiple Projects

6 February 2001 to present

7 Duties: Water supply analysis. Aquifer testing, including under tidally-
8 influenced

9 and stream-influenced conditions. Modeling of water development to evaluate
10 potential impacts as part of EIR and permit requirements.

11 U.S. EPA – Region 9, San Francisco, CA

12 Instructor for Multiple Short Courses

13 September 2002 to November 2004

14 Duties: Taught short courses to EPA professionals on hydrogeology, numerical
15 modeling, well installation, aquifer testing, and vadose zone monitoring and
16 transport.

17 On-Site Technologies, Inc., Campbell, CA

18 Consultant on Multiple Projects

19 June 1989 to May 1997

20 Duties: Hydrogeologic evaluation of contaminant sites, particularly related to
21 petroleum hydrocarbon releases but also including two major solvent cases,
22 remedial action modeling, performed and analyzed numerous aquifer tests and
23 soil vapor tests.

24 Lee Gardner and Associates, Sunnyvale, California

25 Consultant to the Navajo Nation on Uranium Mill Tailing Sites

26 May 1995 to May 2001

27 Duties: Document review of hydrogeology and contaminant transport at four former
28 uranium mills, confirmation modeling of site remediation and landfill leachate
migration.

Leland R. Gardner and Associates, Palo Alto, California

Consultant to Plumas County Dept. of Public Works

June 1998 to March 1999

Duties: Synthesize conceptual model of ground water movement in the vicinity
of Lake Davis, CA and estimate potential migration rates and pathways for fish
toxins in a fractured, granitic aquifer.

California State Board of Registration for Geologists and Geophysicists

Volunteer Consultant to Certified Hydrogeology Evaluation

November 1998 to February 1999

Duties: Development of a list of tasks and knowledge base for hydrogeologists
as part of the formulation of the examination for Certified Hydrogeologists.

1 National Academy of Science
2 Volunteer Member of Committee to Review Specific Scientific and Technical
3 Safety
4 Issues Related to the Ward Valley, California Low-Level Radioactive Waste
5 Site
6 May 1994 to March 1995
7 Duties: Evaluate the potential for vadose zone and ground water transport of
8 radionuclides for a proposed landfill in the eastern Mojave Desert, CA
9
10 Purcell, Rhoades, & Associates, Hayward, California
11 Consultant on Proposed Municipal Landfill Site
12 May 1987 to March 1988
13 Duties: Evaluate site hydrogeology (including aquifer testing
14 and water chemistry) and potential for offsite leachate
15 transport in a fractured granitic rock, canyon site.
16
17 Science Applications International Corporation
18 Pleasanton, California Office
19 Consultant on Environmental Impact Report
20 February to July 1986
21 Duties: Write description of site hydrogeology and evaluate
22 present and future effects of site activities on soil and
23 groundwater quality
24 for a major environmental impact report for Lawrence
25 Livermore National Laboratory, Site 300
26
27 Lawrence Livermore National Laboratory
28 Consultant to Earth Sciences Division
Nuclear Waste Package Project
June to December 1983
Duties: Review existing studies on the hydrogeology of a proposed high
level nuclear waste repository site and advise on further relevant studies.

Australian Institute of Marine Science
Townsville, Queensland, Australia
Visiting Researcher, January to March 1983
Duties: Plan, execute and interpret data for a project to study
water movement and geochemistry through a submerged reef
in the Great Barrier Reef.

University of Hawaii
Research Assistant, Water Resources Research Center
January 1980 to September 1982
Duties: Plan, execute and interpret data for a project studying
the clogging effects of wastewater on injection wells. Field
work included pumping tests, tracer tests, and water quality
sampling.

1 Teaching Assistant, Department of Geology and Geophysics
2 January 1979 to January 1980

3 Duties: Teach general geology labs and a lab in structural
4 geology.

5 Professional Organizations:

6 American Geophysical Union
7 National Ground Water Association

8 Languages:

9 English, Spanish, Swedish, Portuguese, French

10 Publications:

11 Burnett, W.C., Aggarwal, P.K., Bokuniewicz, H., Cable, J.E., Charette, M.A., Kontar, E., Krupa,
12 S., Kulkarni, K.M., Loveless, A., Moore, W.S., Oberdorfer, J.A., Oliveira, J.,
13 Ozyurt, N., Povinec, P., Prvitera, A.M.G., Rajar, R., Ramessur, R.T., Scholten, J.,
14 Stieglitz, T., Taniguchi, M., Turner, J.V., Quantifying Submarine Groundwater
15 Discharge in the Coastal Zone via Multiple Methods, Science of the Total
16 Environment, 2006 (in press).

17 Kakouros, E., Kharaka, Y.K., and Oberdorfer, J.A., Leaching rates and forms of selenium in
18 cores from an agricultural area in Middle Green River Basin, Utah, USA: Earth
19 Science Frontier, Beijing, China, v.13, No 1, p. 86-97, 2006.

20 June A. Oberdorfer, Hydrogeologic Modeling of Submarine Groundwater Discharge:
21 Comparison to other Quantitative Methods, Biogeochemistry, Vol. 66, No. 1-2, p. 159-169,
22 November 2003.

23 William C. Burnett, Makoto Taniguchi, and June Oberdorfer, Measurement and significance of
24 the direct discharge of groundwater into the coastal zone, Journal of Sea Research, Vol. 46,
25 No. 2, p. 109-116, 2001.

26 June A. Oberdorfer, Water Use and Water Recycling in Silicon Valley, Proceedings of the 3rd
27 International Hydrology and Water Resources Symposium, Hydro 2000, The Institution
28 of Engineers, Australia, Perth Australia, November 2000.

Robert W. Buddemeier and June A. Oberdorfer, Hydrogeology of Enewetak Atoll, in Geology
and Hydrogeology of Carbonate Islands, H.L. Vacher and T. Quinn, eds., Elsevier,
Amsterdam, pp.667-692, 1997.

Michael J. Taffet, Laurene K. Green-Horner, Richard J. Woodward, and June A. Oberdorfer,
Draft Engineering Evaluation/Cost Analysis for the Building 850/Pits 3 and 5 Operable
Unit, Lawrence Livermore National Laboratory, Site 300, UCRL-AR-126368 DR, May 1997.

1 June A. Oberdorfer, "Numerical Modeling of Coastal Discharge: Predicting the Effects of
2 Climate Change," Groundwater Discharge in the Coastal Zone, Proceedings of an International
Symposium, LOICZ Reports and Studies, No. 8, p. 85-91, 1996.

3 Committee to Review Specific Scientific and Technical Safety Issues Related to the Ward
4 Valley, California Low-Level Radioactive Waste Site, Ward Valley, An Examination of Seven
5 Issues in Earth Sciences and Ecology, National Academy Press, Washington, D.C., 1995.

6 George Cook, June Oberdorfer, and Stephen Orloff, "Remediation of a Gasoline Spill by Soil
7 Vapor Extraction, Lawrence Livermore National Laboratory, Livermore, CA," National
Ground Water Assoc. Petroleum Hydrocarbon Conf. Proceedings, November 1991.

8 Michael Taffet, Albert Lamarre, and June Oberdorfer, "Performance of a Mixed-Waste Landfill
9 Amid Geologic Uncertainty -- Learning from a Case Study: Altamont Hills, California,
USA," Environmental Geologic Water Science, Vol. 18, No. 3, p. 185-194.

10 June A. Oberdorfer, Patrick H. Hogan, Robert W. Buddemeier, "Atoll Island Hydrogeology:
11 Flow and Freshwater Occurrence in a Tidally Dominated System," Journal of Hydrology, Vol.
12 120, 1990.

13 Michael Taffet, June Oberdorfer, Tina Carlsen, William Dugan, and Robert Mateik, "Remedial
14 Investigation of the Building 850 and East Firing Areas, Lawrence Livermore National
Laboratory Site 300," Environmental Restoration Division, UCRL-ID-104355,
15 September, 1990.

16 June A. Oberdorfer, Michael J. Valentino, and Stephen V. Smith, "Groundwater Contribution to
the Nutrient Budget of Tomales Bay, California," Biogeochemistry, Vol. 10, No. 3, August
17 1990.

18 June A. Oberdorfer, John W. Williams, and Mark G. Smelser, "Lottery Proceeds in California
19 Pay for Installation of a Ground-Water Monitoring System," Journal of Geological
Education," Vol. 38, No. 1, January 1990.

20 Michael Taffet, June Oberdorfer, and William McIlvride, "Remedial Investigation and
21 Feasibility Study for the Lawrence Livermore National Laboratory Site 300 Pit 7 Complex",
Environmental Restoration Division, LLNL, UCID-21685, 1989.

22 Robert W. Buddemeier and June A. Oberdorfer, "Climate Change and Island Groundwater
23 Resources" in: Studies and Reviews of Greenhouse Related Climate Change Impacts on
Pacific Islands, for United Nations Environmental Programme, 1989.

24 Robert W. Buddemeier and June A. Oberdorfer, "Hydrogeology and Hydrodynamics of Coral
25 Reef Pore Waters," Proceedings of the Sixth International Coral Reef Congress, Australia,
26 August 1988.

27 June A. Oberdorfer and Robert W. Buddemeier, "Climate Change: Effects on Reef Island
28 Resources", Proceedings of the Sixth International Coral Reef Congress, Australia,
August 1988.

- 1 Robert W. Buddemeier, Michael R. Ruggieri, and June A. Oberdorfer, "Tritium in Groundwater
2 at Site 300," Lawrence Livermore National Laboratory, UCID-21031, April 1987.
- 3 June A. Oberdorfer and Robert W. Buddemeier, "Coral Reef Hydrology: Field Studies of Water
4 Movement within a Barrier Reef", Coral Reefs, Vol. 5, May 1986.
- 5 Robert W. Buddemeier and June A. Oberdorfer, "Internal Hydrology and Geochemistry of Coral
6 Reefs and Atoll Islands: Key to Diagenetic Variations," in Coral Reef Diagenesis,
J. Schroeder and B. Purser, ed., Springer-Verlag, 1986.
- 7 June A. Oberdorfer and Frank L. Peterson, "Wastewater Injection: Geochemical and
8 Biogeochemical Processes and Their Relationship to Clogging," Groundwater, Vol. 23,
No. 6, November-December 1985.
- 9 June A. Oberdorfer and Robert W. Buddemeier, "Coral Reef Hydrogeology," Proceedings of the
10 Fifth International Coral Reef Congress, Tahiti, May 1985.
- 11 Frank L. Peterson and June A. Oberdorfer, "Uses and Abuses of Wastewater Injection Wells
12 in Hawaii," Pacific Science, Vol. 39, No. 2, March-April 1985
- 13 Frank L. Peterson and June A. Oberdorfer, "Wastewater Injection Well Clogging Problems,"
14 Proceedings, International Conference on Groundwater and Man, Sydney, Australia,
December 1983.
- 15 June A. Oberdorfer and Frank L. Peterson, "Wastewater Injection Well Problems, Processes and
16 Standards," Water Resources Research Center, University of Hawaii, Technical Report
No. 146, December 1982.